

What is Exotic Newcastle Disease?

Exotic Newcastle Disease (END) is a foreign animal disease to the United States and is considered one of the most infectious and contagious disease of birds and poultry. Previously known as Velogenic Viscerotropic Newcastle Disease, END is a fatal viral disease affecting most species of birds. Many birds die before showing any clinical signs of illness and death rates may approach 100 percent.

How would END impact Georgia?

Georgia is the number one poultry producing state in the nation. More than 1.2 billion broilers are produced each year with poultry contributing to over half of the state's farm income. Poultry's annual contribution to Georgia's economy from farms, processing, further processing and allied industries now exceeds \$13.5 billion. An END outbreak would devastate the state's poultry industry by loss of birds and restricted movement of Georgia's poultry and poultry products. Outbreaks are extremely difficult and costly to eradicate.

History of END Outbreaks in the U.S.

Eradicating END requires strict quarantines and in-depth surveillance and laboratory testing. All infected or exposed birds must be destroyed in order to eradicate the disease.

In 1971, southern California experienced a major outbreak in commercial poultry flocks. The disease threatened the California poultry industry which now ranks first in the nation for table egg production and fourth for turkey production. Spread of the disease beyond California's borders could have impacted the entire country's egg and poultry supply.

The outbreak in California was finally eradicated in 1974, but the toll was high with nearly 12 million birds destroyed on 1,341 infected premises. Eradication efforts cost taxpayers \$56 million, and severely disrupted the operations of many producers. Consumers paid the price, too, as prices of poultry and poultry products increased.

In October 2002, END was again diagnosed in California in non-commercial flocks (backyard birds). The disease was first confirmed in California in October 2002 and later confirmed in Nevada in January 2003, Arizona in February 2003 and Texas in April 2003. As of May 1, 2003 there have been approximately 17,000 premises quarantined in the four states with over 3.5 million birds depopulated on over 2,500 different premises.

The U.S. Department of Agriculture has imposed federal quarantines to regulate the interstate movement of all species of birds and poultry products and has declared an extraordinary emergency in the four affected areas. The Georgia Department of Agriculture restricts entry of birds from END quarantined areas. USDA personnel, including staff from Georgia, and other federal government personnel will participate in California task force activities in three-week rotating assignments until the disease is eradicated. A team of nearly 1,500 federal, state and contracted personnel are on the ground at any one time to eradicate the outbreak.

Disease spread is thought to be from illegal movement of birds from infected areas. So far, END has not been found in Georgia.

How Does END Spread?

The END virus is spread when bodily secretions from infected birds come in contact with healthy birds. Secretions, which contain high concentrations of virus, can contaminate droppings and excretions from the bird's nose, mouth or eyes. The disease can spread rapidly among birds that are maintained in close confinement.

The virus also can be transported on contaminated shoes, clothing or equipment from an infected flock to a healthy one. Proper biosecurity measures must be followed when owners, work crews, service personnel, live bird and manure haulers or feed trucks come to a poultry premises.

END can survive for several weeks in humid environments, such as bird feathers, manure and other materials. It can survive indefinitely in frozen material. However, the virus is destroyed rapidly by dehydration and by the ultraviolet rays in sunlight.

Smuggling birds into the U. S., especially Amazon parrots from Latin America or poultry engaged in cockfights, pose a great risk of introducing END into U.S. flocks. Amazon parrots are particularly dangerous because they may carry the disease and not show symptoms, and are capable of spreading the END virus for more than a year. Illegal movements are a risk to Georgia and remain a concern.

How Does END Affect Birds?

END affects the bird's respiratory, nervous and digestive systems. The incubation period for the disease ranges from 2-15 days. Although the following are classical signs of END, some birds may die so quickly that they show no signs of illness before death.

Clinical signs of END may include:

- **Respiratory Distress:** sneezing, gasping for air, nasal discharge, coughing
- **Digestive Upsets:** greenish, watery diarrhea
- **Nervous Disorders:** depression, muscular tremors, drooping wings, twisting of head and neck, circling, complete paralysis
- Partial to complete drop in egg production
- Swelling of the tissues around the eyes and neck
- Sudden death
- Increased death loss

Chicken with END exhibiting tissue swelling and bleeding in lower eyelid.



Chickens with END exhibiting signs of depression, respiratory distress and twisting of the neck.

How Can Poultry Operators Help Prevent END?

Poultry operators should follow biosecurity measures on a routine basis in order to prevent the introduction of END and other avian diseases into their flocks.

Follow these biosecurity measures to prevent END:

- **Submit sick or dead birds to a poultry diagnostic laboratory for examination!**
GA Poultry Laboratory: 770-535-5996
Poultry Diagnostic Research Cntr,UGA:706-542-1904
- Only add birds from disease-free sources! Adhere to import requirements of the Georgia Department of Agriculture.
- Allow only essential workers and vehicles on the premises.
- Clean and disinfect the tires and undercarriages of vehicles entering or leaving the premises. No “germs” in! No “germs” out!
- Have employees wear clean clothing and boots that have been cleaned and disinfected.
- Maintain an “all-in, all-out” philosophy of flock management with a single age flock, if possible.
- Clean and disinfect poultry houses between each lot of birds, if possible.
- Carefully control the transportation, disposal and handling of bird carcasses, litter, and manure to prevent cross-contamination.
- Avoid visiting other poultry operations. Control the movement of poultry and products from farm to farm.
- Protect flocks from wild birds that may nest in poultry houses or feed with domesticated birds.
- **DO NOT** keep pet birds on the premises and do not hire employees who have pet birds or poultry at home.
- **DO NOT** allow vaccination crews, catching crews, or other service personnel that have had contact with other poultry operations onto the premises unless they have followed proper biosecurity protocols.

How can pet bird & backyard poultry owners help prevent END?

END also poses a threat to the caged-bird industry and poultry hobbyists. Birds smuggled into the U.S. illegally bypass the quarantining and testing procedures of the U.S. Department of Agriculture pose a particular threat. If the

birds are carrying the virus, owners and animal health officials may not discover the infection until an outbreak occurs. To protect the bird industry, owners of pet birds and backyard flocks should:

- Require suppliers to provide certificates that birds were legally imported, or that the birds are of U.S. origin.
- Only add birds from disease free source flocks! Adhere to import requirements of the Georgia Department of Agriculture.
- Maintain records of all purchases, sales and shipments of birds.
- Insist that suppliers transport birds in new or thoroughly disinfected containers.
- Isolate all newly acquired birds for at least 30 days. Restrict movement between new and old birds, and practice good biosecurity!

Note: Amazon parrots are difficult to raise domestically. Sellers offering a large number of young parrots should be suspected of smuggling or purchasing illegally imported birds.

What should I do if I suspect END?

Report Exotic Newcastle Disease

USDA: 770-922-7860 (24 hours), or
GA Dept of Agriculture: 1-800-282-5852
Ext. 3667, M–F, 8-4:30

Don't wait! If you have large, unexpected death loss or illness among your birds, report it immediately! Also, restrict traffic both onto and off of the premises and disinfect shoes and hands to prevent the potential spread of disease! The Departments of Agriculture will insure that specimens are submitted to the proper laboratory for testing.

For more information

END does not affect human health. Chicken and eggs are safe to eat. For more information about END, log onto the following websites:

<http://www.aphis.usda.gov/lpa/issues/enc/exoticnc.html>
http://www.cdffa.ca.gov/ahfss/ah/Newcastle_info.htm
http://www.vet.uga.edu/vpp/gray_book/fad.pdf

Exotic Newcastle Disease



**What you should know
to keep this deadly avian
disease out of Georgia!**

Information Provided by

Georgia Department of Agriculture

**19 MLK, Jr. Drive
Atlanta, GA 30334**

**1-800-282-5852, ext. 3667
404-656-3667**

<http://www.agr.state.ga.us>

*Tommy Irvin
Commissioner*